ALTERNATES



Add Alternate #1:

Construction and fit ou

Construction and fit out of therapy pool, mechanical area (1-606), pool enclosure (1-603), associated roofing, specialty equipment housed within the pool area, doors 600B, 603, 604B, and sidelight 604 are all alternate.

Base bid to include demolition of mechanical unit, slab, and fence (D8); demolition of concrete ramp and canopy (D2, D7, D11); demolition of exterior door near column G4 and subsequent infill of exterior wall.

Plumbing sheets: PP101, PP111, PP112, PP113, PP301, PP302, and PP601 (all plumbing work related to therapy pool).

Mechanical sheets: MH111, MH401, MH503, MH504, MP101, MP111, and MH602 (all mechanical work related to therapy pool).

Electrical sheets: ED101, E-102, E-103, E-104, E-105, E-601, E-603, E-604 and

FA102 (all electrical work related to therapy pool).

ELECTRICAL LEGEND

120V DUPLEX RECEPTACLE: 18" AFF STANDARD

120V DUPLEX RECEPTACLE: GFI 18" AFF STANDARD

GFI
44" AFF

120V DUPLEX RECEPTACLE: GFI 44" AFF STANDARD

GFI
48" AFF

120V DUPLEX RECEPTACLE: GFI 48" AFF STANDARD

M 120V DEDICATED DUPLEX RECEPTACLE: MICROWAVE
T 120V DEDICATED DUPLEX RECEPTACLE: TREADMILL 18" AFF STANDARD

120V DEDICATED DUPLEX RECEPTACLE: DISHWASHER 18" AFF STANDARD

120V DEDICATED DUPLEX RECEPTACLE: WASHER 44" AFF

 ⊕ GFI WC

 □ 120V DEDICATED DUPLEX RECEPTACLE: WATER COOLER

 □ 120V QUADRUPLEX RECEPTACLE: 18" AFF STANDARD

 □ 120V QUADRUPLEX RECEPTACLE: GEL 18" AFF STANDARD

120V QUADRUPLEX RECEPTACLE: GFI 18" AFF STANDARD

220V DEDICATED RECEPTACLE: DRYER 44" AFF STANDARD

DATA/TELCO OUTLET: 18" AFF STANDARD UNO;
SEE DETAIL 10/E-501

DATA OUTLET: 18" AFF STANDARD UNO

WALL TELCO OUTLET: 48" AFF STANDARD UNO
TELEVISION - CATV

DISCONNECT SWITCH NON-FUSED
DISCONNECT SWITCH FUSED

SINGLE POLE WALL SWITCH: 44" AFF STANDARD UNO
TWO GANG SINGLE POLE WALL SWITCH: 44" AFF STANDARD

THREE WAY WALL SWITCH: 44" AFF STANDARD UNO
TWO GANG THREE WAY WALL SWITCH: 44" AFF STANDARD UNO
FOUR WAY WALL SWITCH: 44" AFF STANDARD UNO

DIMMER WALL SWITCH: 44" AFF STANDARD UNO

MOTOR RATED SWITCH: 44" AFF STANDARD UNO

CARD READER: 46" AFF STANDARD UNO

KEY PAD: 46" AFF STANDARD UNO

SPEAKER

BELL

___ CAMERA

one eighth inch = one foot

0 4 8 16

PANIC BUTTON: 46" AFF STANDARD UNO

	ABBREVIATIONS											
4DLL	OINOLE BUAGE	20	DECIDE! OF DIDECT DUDIN	LED	LIQUIT EMITTING DIODE	OUT	OUEET					
1PH 1P	SINGLE-PHASE SINGLE POLE	DB DC	DECIBEL OR DIRECT BURIAL DIRECT CURRENT	LED LF	LIGHT EMITTING DIODE LINEAR FEET (FOOT)	SHT SI	SHEET INTERNATIONAL SYSTEM OF UN					
2/C	TWO-CONDUCTOR	DCP	DIMMER CONTROL PANEL	LM	LUMEN	SPEC	SPECIFICATION					
3/C	THREE-CONDUCTOR	DEG C	DEGREES CELSIUS	LP	LIGHT POLE	SPST	SINGLE POLE, SINGLE THROW					
3PH	THREE-PHASE	DEG F	DEGREES FAHRENHEIT	LPS	LOW PRESSURE SODIUM	SURF	SURFACE					
4/C	FOUR-CONDUCTOR	DEMO	DEMOLITION	LRA	LOCKED ROTAR AMPS	SW	SWITCH					
4W	FOUR-WIRE	DIAG	DIAGRAM	LTCP	LOCAL TEMPERATURE CONTROL PANEL	SWBD	SWITCHBOARD					
A/C UNIT	AIR CONDITIONING UNIT	DISC	DISCONNECT	LT	LIGHT	SWGR	SWITCHGEAR					
A/E	ARCHITECT/ENGINEER	DISTR	DISTRIBUTION	LTG	LIGHTING	TC	TIMECLOCK					
AAP	ALARM ANNUNCIATOR PANEL	DISTR PL	DISTRIBUTION PANEL	LTG PNL	LIGHTING PANEL	TEL	TELEPHONE					
AC	ALTERNATING CURRENT OR ARMORED	DMR SW	DIMMER SWITCH	LTNG	LIGHTNING	TP	TWISTED PAIR					
400	CABLE	DN	DOWN	LV	LOW VOLTAGE	TPS	TWISTED PAIR SHIELDED					
ACC	ACCESSIBLE ADDITIONAL	DPDT DPST	DOUBLE POLE, DOUBLE THROW	NAAT\/	MARCED ANTENNA TELEVICIONI SVOTEM	TTB	TELEPHONE TERMINAL BOARD					
ADDL ADJ	ADDITIONAL ADJACENT, ADJOINING	DRSW	DOUBLE POLE, SINGLE THROW DOOR SWITCH	MATV MAX	MASTER ANTENNA TELEVISION SYSTEM MAXIMUM	TV TYP	TELEVISON TYPICAL					
ADO ADO	AUTOMATIC DOOR OPENER	DRSW	DISCONNECT SWITCH	MC	METAL-CLAD	ITP	TYPICAL					
AF	AMPERE FRAME OR AMP FUSE	DWG	DRAWING	MCA	MINIMUM CIRCUIT AMPS	UFD	UNDERFLOOR DUCT					
AFC	ABOVE FINISHED COUNTER,	BWG	DIAWING	MCB	MINIMUM CIRCUIT BREAKER	UGND	UNDERGROUND					
0	AUTOMATIC FREQUENCYCONTROL, OR	EC	EMPTY CONDUIT	MCC	MOTOR CONTROL CENTER	UL	UNDERWRITERS LABORATORY					
	AVAILABLE FAULT CURRENT	EG	EQUIPMENT GROUND	MDP	MAIN DISTRIBUTION PANEL	UON	UNLESS OTHERWISE NOTED					
AFF	ABOVE FINISHED FLOOR	EL	ELEVATION	MECH	MECHANICAL	UPS	UNINTERRUPTIBLE POWER SUP					
AFG	ABOVE FINISHED GRADE	ELEC	ELECTRIC OR ELECTRICAL	MG	MOTOR GENERATOR	UTIL	UTILITY					
AH	AMPERE HOUR	ELEV	ELEVATOR	MH	MANHOLE							
AHJ	AUTHORITY HAVING JURISDICTION	EMCP	EMERGENCY MONITORING CONTROL	MIN	MINIMUM	V	VOLT					
AIC	AMPERE INTERRUPTING CAPACITY	PANE		MOCP	MAXIMUM OVERCURRENT PROTECTION	VA	VOLT AMPERE					
ALT	ALTERNATE	EMER	EMERGENCY	MLO	MAIN LUGS ONLY	VAR	VOLT AMPERE REACTIVE					
AMB OR A	AMBIENT	EMI	ELECTROMAGNETIC INTERFERENCE	MT	MOUNT	VFCU	VERTICAL FAN COIL UNIT					
AMP	AMPERE ARCHITECT	EMT	ELECTRICAL METALLIC TUBING	MTD MTG	MOUNTED MOUNTING	VFD VOLT	VARIABLE FREQUENCY DRIVE					
ARCH ASC	AMPS SHORT CIRCUIT	ENCL EPO	ENCLOSURE EMERGENCY POWER OFF	MTS	MANUAL TRASNFER SWITCH	VOLI	VOLTAGE					
AT	AMPERE TRIP	EPRF	EXPLOSION PROOF	MV	MEDIUM VOLTAGE	W	WATT					
ATS	AUTOMATIC TRANSFER SWITCH	ESMT	EASMENT	MVA	MEGAVOLT-AMPERE	WH	WATER HEATER					
AUTO	AUTOMATIC	EWC	ELECTRIC WATER COOLER	MW	MEGAWATT MICROWAVE	WP	WEATHERPROOF					
AV	AUDIO VISUAL	EWH	ELECTRIC WATER HEATER		M26/WWW MIGHOWAY	•••	WEXTHER ROOT					
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	EXIST	EXISTING	NA	NOT APPLICABLE	XFER	TRANSFER					
BAT	BATTERY			NEC	NATIONAL ELECTRICAL CODE	XFMR	TRANSFORMER					
BC	BARE COPPER	FA	FIRE ALARM	NEMA	NATIONAL ELECTRICAL MANUFACTURERS							
BD	BOARD	FAAP	FIRE ALARM ANNUNCIATOR PANEL		ASSOCIATION							
BFF	BELOW FINISH FLOOR	FABL	FIRE ALARM BELL	NEUT OR N	NEUTRAL							
BIL	BASIC INSULATION LEVEL	FABX	FIRE ALARM BOX	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION							
BLDG	BUILDING	FACP	FIRE ALARM CONTROL PANEL	NIC	NOT IN CONTRACT							
BPIP	BOILER PLANT INTRUMENTATION	FC	FOOTCANDLE	NL NO	NIGHT LIGHT							
2010	PANEL	FCU	FAN COIL UNIT	NO	NORMALLY OPEN							
BRKR BYP	BREAKER BY PASS	FI FIXT	FILM ILLUMINATOR FIXTURE	NS NTS	NO SCALE NOT TO SCALE							
BIF	BY PASS	FLT	FLOODLIGHT	INIO	NOT TO SCALE							
С	CONDUIT	FLUOR	FLUORESCENT	OC	ON CENTER							
CAB	CABINET	FLUOR FLUOR FIX	FLUORESCENT FIXTURE	OD	OUTSIDE DIAMETER							
CALC	CALCULATE	FT	FEET OR FOOT	OL	OVERLOAD							
CAP	CAPACITY	FU SW	FUSED SWITCH	02	0 VENCEO/ 13							
CAT	CATALOG	FVNR	FULL VOLTAGE NON-REVERSING	Р	POLE							
CATV	COMMUNITY ANTENNA TELEVISION	FVR	FULL VOLTAGE REVERSING	PA	PUBLIC ADDRESS							
CCR	CONTROL CONTACTOR			PB	PANELBOARD, PULL BOX, OR PUSHBUTTON							
CCTV	CLOSED CIRCUIT TELEVISION	G OR GND	GROUND	PBPU	PREFABRICATED BEDSIDE PATIENT UNIT							
cd	CANDELA	GEN	GENERATOR	PCB	POLYCHLORINATED BIPHENYL							
CD	CONSTRUCTION DOCUMENTS	GFCI	GROUND FAULT CIRCUIT INTERRUPTOR	PEC	PHOTOELECTRIC CELL							
CF	CONTRACTOR FURNISHED	GTB	GROUND TERMINAL BOX	PED	PEDESTAL							
CFE	CONTRACTOR FURNISHED	LIFOLI	LICEIZONITAL FAN COULLINIT	PEND	PENDANT							
CLIM	EQUIPMENT CHILLED WATER	HFCU HID	HORIZONTAL FAN COIL UNIT HIGH INTENSITY DISCHARGE	PF	POWER FACTOR PHASE							
CHWP	CHILLED WATER CHILLED WATER PUMP	HOA	HAND-OFF-AUTOMATIC	PH PNL	PANEL							
CKT	CIRCUIT	HP	HORSEPOWER	POD	POWER OPERATED DAMPER							
CKT BRKR	CIRCUIT BREAKER	HT	HEIGHT	PT	POTENTIAL TRANSFORMER							
CLF	CURRENT LIMITING FUSE	HZ	HERTZ	PTRV	POWER TYPE ROOF VENTILATION							
CLG	CEILING	112	TILITIE	PVC	POLYVINYL CHLORIDE (PLASTIC)							
CMU	CONCRETE MASONRY UNIT	IESNA	ILLUMINATION ENGINEERING SOCIETY	PWR	POWER							
COAX	COAX CABLE		OF NORTH AMERICA									
COMM	COMMUNICATION	IMC	INTERMEDIATE METAL CONDUIT	RCP	REFLECTED CEILING PLAN							
COMPT	COMPARTMENT	INCAND	INCANDESCENT	REC	RECESSED							
CONC	CONCRETE	IR	INFRARED	RECEPT	RECEPTACLE							
CONT	CONTINUE	IWH	INSTANTANEOUS WATER HEATER	RGS	RIGID GALVANIZED STEEL							
CONTR	CONTRACTOR			RM	ROOM							
COORD	COORDINATE	J-BOX	JUNCTION BOX	RMS	ROOT MEAN SQUARE							
CPT	CONTROL POWER TRANSFORMER			REQD	REQUIRED							
CRI	COLOR RENDERING INDEX	kV	KILOVOLT	000								
CT	CURRENT TRANSFORMER	kVA	KILOVOLT AMPERE	SCC	SHORT CIRCUIT CAPACITY							
CTV	CABLE TELEVISION	kVAH kVAR	KILOVOLT AMPERE PER HOUR KILOVOLT AMPERE REACTIVE	SES	SERVICE ENTRANCE SECTION							
CU CU FT	COPPER CUBIC FEET	kVAR kW	KILOVOLT AMPERE REACTIVE KILOWATT	SD SF	SMOKE DETECTOR SQUARE FOOT (FEET)							
CUR	CURRENT		KILOWATT KILOWATT HOUR	SF	SQUARE FOOT (FEET)							
	CURRENT	kWH	KILOWATT HOUR KILOWATT HOUR METER									

GENERAL NOTES

1. ALL ELECTRICAL DEVICES, FIXTURES, EQUIPMENT AND FEEDERS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDED PROCEDURES, ALL APPLICABLE LOCAL AND STATE CODES, AMERICAN DISABILITIES ACT AND WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.

2. PROVIDE ADDITIONAL SUPPORT FOR DEVICES, FIXTURES, EQUIPMENT AND FEEDERS WHERE THE BUILDING CONSTRUCTION IS NOT SUITABLE FOR DIRECT MOUNTING.

3. FIRESTOP, DRAFTSTOP, SMOKESTOP AND/OR PROTECT THE ANNULAR SPACE AROUND ALL PENETRATIONS THROUGH WALLS, PARTITIONS, FLOORS, CEILING, AND ROOFS IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, UL LISTING REQUIREMENT AND THE APPLICABLE BUILDING CODES.

4. VERIFY CEILING SYSTEMS AND PROVIDE MOUNTING ACCESSORIES, TRIMS AND ALL REQUIRED MOUNTING HARDWARE TO SUIT THE PARTICULAR INSTALLATION.

 PROTECT EXISTING UNDERGROUND AND BUILDING INTERIOR UTILITIES DURING CONSTRUCTION.

BRANCH CIRCUIT CONDUCTORS SHALL BE 12 AWG COPPER MINIMUM.COORDINATE ANY AND ALL WORK WITH ALL OTHER TRADES PRIOR TO

INSTALLATION SO AS TO AVOID CONFILCT DURING ONSTRUCTION.

8. ALL PANELS SHALL HAVE TYPED, COMPLETED DIRECTORIES INDICATING EQUIPMENT SERVED AND ROOM NUMBER (AS INDICATED ON FINAL BUILDING ROOM SIGNAGE) OF EQUIPMENT LOCATION, OR SPARE, OR SPACE.

MANUFACTURER'S NAME AND MODEL NUMBER ARE GIVEN FOR DESCRIPTIVE PURPOSES, TO INDICATE A QUALITY STANDARD AND ARE NOT INTENDED TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DEEMED EQUAL AND APPROVED BY THE DESIGNER WILL BE ACCEPTED. ALL PRODUCTS MUST COMPLY WITH "BUY AMERICAN ACT".

D. ALL FEEDERS AND CIRCUITRY SHALL BE TORQUED PER THE PANEL, BREAKER, AND/OR PARTICULAR EQUIPMENT MAUNFACTURER'S SPECIFICATIONS.

11. CIRCUITRY TO SWITCHES, RECEPTACLES, AND ALL OTHER DEVICES SHALL BE TERMINATED ON THE DEVICE'S SCREW TERMINALS.

12. MOUNTING HEIGHTS INDICATED ARE TO CENTER OF DEVICE, OUTLET, FIXTURE, OR EQUIPMENT UNLESS NOTED OTHERWISE.

13. ALL WIRE TERMINATIONS SHALL BE RATED FOR 75 DEGREE C.

14. ALL CONDUCTORS SHALL HAVE THHN/THWN INSULATION, UNLESS OTHERWISE NOTED.

15. ALL CONDUIT SHALL BE RGS, EMT, OR LFMC UNLESS OTHERWISE NOTED. FMC CONDUIT MAY BE USED ON VIBRATING EQUIPMENT.

16. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD PARTY TESTING AGENCY.

17. UNDERGROUND CONDUIT SHALL BE BURIED PER TABLE 300.5 OF THE 2011 NEC.

ELECTRICAL SYSTEM AND EQUIPMENT	ENERGY COST BUDGET
METHOD OF COMPLIANCE: PRESCRIPTIVE	PERFORMANCE
BALLAST TYPE USED IN THE FIXTURE: NUMBER OF BALLASTS IN FIXTURE: TOTAL WATTAGE PER FIXTURE: TOTAL INTERIOR WATTAGE SPECIFIED	REFER TO LIGHT FIXTURE SCHEDULE REFER TO LIGHT FIXTURE SCHEDULE
EQUIPMENT SCHEDULES WITH MOTORS (NOT U MOTOR HORSEPOWER: N/A NUMBER OF PHASES: N/A MINIMUM EFFICIENCY: N/A MOTOR TYPE: N/A NUMBER OF POLES: N/A	SED FOR MECHANICAL SYSTEMS)
DESIGNER STATEMENT:	
	THE DESIGN OF THIS BUILDING COMPLIES WITH THE EMENTS OF ANSI/ASHRAE/IESNA STANDARD 90.1-2007.
	ARLES G. SOWDERS III

SYMBOL	LABEL	# OF LAMPS	TYPE OF LAMP	BALLAST	WATTS/ FIXTURE	VOLTAGE	DESCRIPTION
	B2	2	14W T5 3500K	1 PROGRAM START 1.0 BF	32	277	2' X 2' RECESSED PRISMATIC LENSED TROFFER FLUORESCENT
	В3	3	14W T5 3500K	1 PROGRAM START 1.0 BF	50	277	2' X 2' RECESSED PRISMATIC LENSED TROFFER FLUORESCENT
	C2	2	28W T5 3500K	1 PROGRAM START 1.0 BF	64	277	2' X 4' RECESSED PRISMATIC LENSED TROFFER FLUORESCENT
	СЗ	3	28W T5 3500K	2 PROGRAM START 1.0 BF	95	277	2' X 4' RECESSED PRISMATIC LENSED TROFFER FLUORESCENT
├ ── ० ── ┤	E	2	28W T5 3500K	1 PROGRAM START	62	277	4' FLUORESCENT STRIP LIGHT
4.2	EMR	LED	LED		1	277	EXTERIOR EMERGENCY EGRESS LIGHT FIXTURE SUITABLE FOR WET AND COLD LOCATIONS
⊗	EXA	LED	LED		1	277	SINGLE-FACE LED EMERGENCY EXIT SIGN WITH DIRECTIONAL INDICATOR
•	EXB	LED	LED		1	277	DOUBLE FACE LED EMERGENCY EXIT SIGN WITH DIRECTIONAL INDICATOR
0	F	1	26W TRT 3500K	1 PROGRAM START	29	277	6" OPEN RECESSED HORIZONTAL COMPACT FLUORESCENT DOWNLIGHT
0	G	1	42W TRT 3500K	1 PROGRAM START	46	277	8" LENSED RECESSED HORIZONTAL COMPACT FLUORESCENT DOWNLIGHT SUITABLE FOR WET LOCATIONS
0	J	1	150W PSMH 3500K	1	166	277	16" PENDENT MOUNTED POOL LIGHT FIXTURE WITH GLASS LENS SUITABLE FOR NATATORIUM
	K2	2	14W T5 3500K	1 PROGRAM START 1.0 BF	32	277	2' LINEAR FLUORESCENT WALL BRACKET
	K4	2	28W T5 3500K	1 PROGRAM START 1.0 BF	64	277	4' LINEAR FLUORESCENT WALL BRACKET
	L	1 OR 2	T5 3500K	1 INSTANT START	8 W/FT	120	LINEAR FLUORESCENT UNDERCABINET LIGHT. COORDINATE LENGTHS AND MOUNTING WITH CABINETRY AND ARCHITECTURAL DRAWINGS.
모	N	LED	LED 3500K	1 LED DRIVER	26	277	EXTERIOR LED WALL PACK

FULLY SPRINKLERED ISSUED FOR BID

	CONSULTANTS:								PROJECT MANAGER: Project Number 3627 As indicated			Drawing Title ELECTRICAL NOTES, ABBREVIATIONS, LEGENDS	Project Title RENOVATE BUILDING 69		VA Project Number 542-CSI-203	
	Project Manager BRAY MOONEY		- /		Civil Engineer GUIDON DESIGN	Fire Protection Consultant HARRINGTON			Bray			AND LIGHT FIXTURE SCHEDULE			Building Number 69	Office of Facilities
	CONSULTING	FACILITIES SOLUTIONS	CONSULTING ENGINEERS	CONSULTING GROUP	OAFON DELAWADE OTDEET	GROUP	CONSULTING	AQUATIC ENGINEERING	Mooney			Approved: Project Director	Location 1400 Black Hors	e Hill, Coatesville, PA	Drawing Number	Management
Revisions Date	410 E. 21 STREET CHESTER, PA, 19013 Tel (610) 872-3716	2520 RENAISSANCE BLVD., SUITE 110 KING OF PRUSSIA, PA, 19406 Tel (610) 270-0599	180 W. RIDGE PIKE LIMERICK, PA, 19468 Tel (214) 329-5559	7330 CHAPEL HILL ROAD, SUITE 202 RALEIGH, NC, 27606 Tel (919) 858-7420	2453 N DELAWARE STREET INDIANAPOLIS, IN 46205 Tel (317) 800-6388	7508 E. INDEPENDENCE BLVD., SUITE 116 CHARLOTTE, NC, 28277 Tel (704) 531-9077	410 E. 21 STREET CHESTER, PA, 19013 Tel (610) 872-3716	1823 DEEP RUN ROAD PIPERSVILLE, PA, 18947 Tel (215) 766-0409	Consulting				Date 1/22/2014	Checked Drawn CGS/WCM KLC	E-001 Dwg. 69 of 86	Department of Veterans Affairs

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